Supplemental Methods: DNA Sequencing of *Rpe65*

DNA for sequencing of *Rpe65* was prepared by qRT-PCR of RNA isolated from both +/+ and T/T mice using primers specific to overlapping regions of *Rpe65* (Supplemental Table 1, below). Resulting DNA samples were sequenced using forward primers from each amplification reaction for qRT-PCR (Eurofins MWG Operon, Huntsville, AL), and T/T samples were compared to +/+ sequence through BLAST (blast.ncbi.nlm.nih.gov/Blast.cgi).

Supplemental Table 1: Primers for amplification of *Rpe65* cDNA

***Rpe65* amplicon**	**Primer Sequence**
Exons 1-3	F: 5′-AAA TTG AAC ACC CTG CTG GT-3′ R: 5′-AGG GCT TGT CCA TGC AAC AG-3′
Exons 3-4	F: 5′-TGA AGT TGG ATC TGA GCC TT-3′ R: 5′-AAC ATA AGC ATC AGT GCG G-3′
Exons 4-5	F: 5′-TTC ATC CGC ACT GAT GCT TA-3′ R: 5′-CAA GGG CAT TGT CAG TAA CC-3′
Exons 5-6	F: 5′-CCC AGA GAC CTT GGA GAC AA-3′ R: 5′-TGC TTT CAG TGG AGG GAT CT-3′
Exons 6-8	F: 5′-GTC AAT GGT GCC ACT GCT C-3′ R: 5′-CCC ATG CTT TCA TTG GAC TC-3′
Exons 8-9	F: 5′-TTT CGA GTC CAA TGA AAG CA-3′ R: 5′-CCA GCA ACA GAG ATC CAC AA-3′
Exons 9-10	F: 5′-CCT GAC TTC AGG CTG AGG AG-3′ R: 5′-TCC CCT TTC AAT CTC TTC CA-3′
Exons 10-14	F: 5′-AGG CTC CTC AGC CTG AAG TC-3′ R: 5′-AGT CCA TGG AAG GTC ACA GG-3′

Supplemental Results: There is only one mutation in *Rpe65* in T/T mice

DNA sequencing results showed the *Rpe65* mRNA in T/T mice was identical in sequence to wild type C57BL/6J *Rpe65* mRNA except at the tvrm148 mutation, where there was a single nucleotide substitution of a C for T (Supplemental Fig. 1, below). This single nucleotide substitution results in the F229S missense mutation. The sequences of each

amplicon from C57BL/6J mice were identical to the reference sequence (NCBI Ref Seq NM_029987.2).

Supplemental Figure 1: DNA sequencing chromatogram shows a single nucleotide substitution in T/T mice.